

Amendments to the Specification:

Please replace paragraph [0011] with the following amended paragraph:

[0011] Thus, what is needed in the art is a way to convey and process the secondary cracker product which does not rely on the manual shovel technique and which more effectively handles the mixture of shells and meat therein. Further, what is needed is a way to ~~insure~~ensure that, substantially only whole, uncracked pecans are returned to the cracker 82.

Please replace paragraph [0031] with the following amended paragraph:

[0031] Air (indicated by solid line in Figure 4) carrying the heavier nut parts (indicated by a dashed line in Figure 4) and lighter nuts parts (indicated by a dashed-dot line in Figure 4) ~~enters~~enter through the inlet 402. Within a separation chamber of the aspirator 400, the air and nut parts encounter a solid leading edge of the baffle 404 which partially blocks or interrupts the air flow and forces a change in the direction of the air, heavier nut parts, and lighter nut parts. The aspirator 400 further has a plurality of air control ports 410A,B (some of which may flow through the trailing edge of the baffle 404 through holes therein) through which air flow may be controlled. By adjusting the amount of air flow through the air control ports 410A,B, it is possible to set the aspirator 400 to allow pecan parts having at least a particular weight to fall, as indicated by the dashed line, to the air lock mechanism 406. The air lock mechanism 406 preferably comprises an internal paddle 412 that comprises a plurality of blades 414. The heavier pecan parts or heavier portion preferably falls into the space between two adjacent blades 414. As the paddle 412 rotates, the heavier pecan parts are removed from the vacuum present in the main portion of the aspirator 400, and allowed to drop out of the air lock 406 at its bottom. The lighter pecan parts or lighter portion, indicated by the dash-dot line in Figure 4, are carried by the air flow within the aspirator

400 through the aspirator's outlet 408. Referring again to Figure 2, the lighter portion, which in the preferred embodiments represent substantially only pecan shells and dust, are conveyed as indicated by line 228 by means of the air flow to a series of shell and dust separation devices, described more fully below. As for the heavier pecan parts that pass through the air lock 406, these pecan parts preferably are pecan meat and large shells, and these are then preferably conveyed to the first screen 208.

Please replace paragraph [0043] with the following amended paragraph:

[0043] That portion of the cracker product that did not fall through any of the co-planar screens is conveyed, by the vibratory motion of those screens, off the end of the fourth screen 250 to a shelling device, which in the preferred embodiments is a plurality of sets of rubber rollers 500, as indicated by line 276. That portion of the cracker product that is conveyed off the end of the fourth screen 250 comprises whole uncracked nuts, and substantially whole cracked nuts. Each set of rubber rollers comprises a pair of substantially parallel rotating cylinders. Each of these cylinders preferably has a rubber coating on an outer surface thereof, and the cylinders are rotating such that, as measured between them, the direction of travel is substantially the direction of the pull of gravity. The rubber rollers are preferably spaced such that substantially whole cracked pecans are further broken, but that whole uncracked pecans pass unaffected. U.S. Patent Nos. 5,879,734 and 6,135,020 describe using parallel rubber coated cylinders as a mechanism to further shell previously cracked pecans. For brevity, that description will not be repeated here. The rubber coated cylinders of the preferred embodiments of this invention differ in the number used, which in the preferred embodiments are ten (five pairs), which is ~~(based-~~ based on the rate that pecans are fed to the nut processing unit 200, and physical structure of the rollers themselves. In particular, in

the '734 and '020 patents, it is described that rubber is coated on the outer surface of a hollow cylinder, and that bearings are press fit on each end of each cylinder. In the preferred embodiments of this invention, the rubber coated cylinders are preferably made from a solid piece of steel having a cylindrical cross-section. Ends of the steel member are preferably turned to a diameter which allows the bearing structures to slide over the ends of the turned portion. While operation of the parallel rubber coated cylinders does not change between the two structures, the structures of the preferred embodiment of this invention are more easy to construct and maintain.

Please replace paragraph [0046] with the following amended paragraph:

[0046] In broad terms the pin sorter 600 separates cracked pecans from uncracked pecans. The uncracked pecans are conveyed to the cracker 204, as indicated by line-~~282~~286. Cracked pecans separated by the pin sorter 600 are preferably conveyed back to the first screen as indicated by line ~~286~~284. This method presents a more efficient handling of the cracked and uncracked pecans than prior methods. In particular, conveying the cracked pecans back to the first screen, and then through the rest of the separation process, relies on the less harsh method and structure of the rubber coated cylinders to further shell the cracked pecans. Uncracked pecans, however, are sent back to the cracker. Figure 8 shows a simplified perspective view of a pin sorter 600 of the preferred embodiments. The pin sorter 600 preferably has a rotating outer cylinder 602 having a plurality of pins (not shown in Figure 8) mounted on an inside surface. Pecans and pecan parts are preferably conveyed to the inside diameter of the rotating cylinder 62 where they come in contact with the pins thereon.